

Appl. No. 10/813,046
Amdt. Dated Jan. 04, 2006
Reply to Office Action of Dec. 06, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended)

A blind threaded insert installation tool, comprising:

a body having a nosepiece;

the nosepiece including an insert head support anvil having an expandable mandrel assembly projecting forwardly therefrom for engaging a fastener insert having an internally-threaded bore and compressing it against said anvil;

the expandable mandrel assembly comprising an elongate mandrel rod having an internal axial bore and helical threads along an outside surface thereof matching the internal threads of said insert, said mandrel with means for moving said mandrel rod radially from a collapsed state to an expanded state; and

means for extending forward and retracting backward said mandrel rod assembly from said anvil and for moving said mandrel rod to a fully extended position.

Claim 2 (original)

The tool of claim 1 wherein said mandrel rod is radially segmented comprising a plurality of radially movable segments.

Claim 3 (original)

The tool of claim 2 wherein said means for moving said mandrel rod from the collapsed state to the extended state lies within the axial bore of the mandrel rod.

Appl. No. 10/813,046
Amdt. Dated Jan. 04, 2006
Reply to Office Action of Dec. 06, 2005

Claim 4 (original)

The tool of claim 3 wherein said means for moving said mandrel rod between the collapsed and expanded states is an axially movable spreading pin including a substantially conical wedge surface engageable with inner walls of said mandrel rod segments.

Claim 5 (original)

The tool of claim 4 further including means for resiliently biasing said mandrel rod segments toward the collapsed state.

Claim 6 (original)

The tool of claim 5 wherein means for extending and retracting said rod from the anvil is a pneumatic cylinder.

Claim 7 (original)

The tool of claim 6 wherein the number of mandrel rod segments is four.

Claim 8 (original)

The tool of claim 5 wherein said means for resiliently biasing said segments toward the collapsed state is a garter assembly.

Claim 9 (original)

The tool of claim 8 wherein the means for axially moving said spreading pin is a hydraulic cylinder.

Claim 10 (original)

The tool of claim 4 further including actuator means for moving said spreading pin

Appl. No. 10/813,046
Amdt. Dated Jan. 04, 2006
Reply to Office Action of Dec. 06, 2005

forward and backward.

Claim 11 (original)

The tool of claim 2 including a plurality of axially extending radial slots lying between each mandrel segment.

Claim 12 (currently amended)

The tool of claim 9 wherein said spreading pin includes a cylindrical wall portion engageable with said segments for locking said pin segments in the expanded state whereby an inward radial force applied to the mandrel rod segments does not cause an axial force on said spreading pin.

Claim 13 (original)

The tool of claim 1 further including means to adjust the axial position of the anvil relative to the mandrel rod when it is in its fully extended position.

Claim 14 (new)

A blind threaded insert installation tool, comprising:

a body having a nosepiece and an internally threaded insert engaged therewith;

the nosepiece including an insert head support anvil having an expandable mandrel assembly projecting forwardly therefrom for engaging the fastener insert and compressing it against said anvil;

the expandable mandrel assembly comprising an elongate mandrel rod having an internal axial bore and helical threads along an outside surface thereof matching the internal

Appl. No. 10/813,046
Amdt. Dated Jan. 04, 2006
Reply to Office Action of Dec. 06, 2005

threads of said insert, said mandrel with means for moving said mandrel rod radially from a collapsed state to an expanded state; and

means for extending forward and retracting backward said mandrel rod assembly from said anvil and for moving said mandrel rod to a fully extended position.